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KANSAS UNIVERSITY SCIENCE BULLETIN.

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A PRELIMINARY LIST OF THE DIPTERA OF KANSAS.

BY F. H. SNOW.

NO inconsiderable amount of Kansas material in this much neglected order of insects has been accumulated in the museum of the University of Kansas as a result of the various collecting expeditions of the past twenty-five years, although chief attention has been directed to the Lepidoptera and Coleoptera. The fortunate opportunity of securing the services of Dr. C. F. Adams as a special student of the Diptera during the past year and a half has enabled the author of this paper to present this preliminary list of species.

Family CECIDOMYIDÆ (gall-gnats).

Cecidomyia destructor Say. Douglas and Sedgwick counties.

Family MYCETOPHILIDÆ (fungus-gnats).

Ceroplatus apicalis Adams, n. sp. Douglas county.
Neoglaphyroptera bivittata Say. Douglas county.
oblectabilis Loew. Douglas county.
Zygoneura toxoneura O. S. Douglas county.

Family BIBIONIDÆ (march-flies).

Bibio tristis Will.
albipennis Say. Lincoln county.
femorata Wied. Douglas county.
pallipes Say. Douglas county.
Plecia heteroptera Say. Douglas county.
Dilophus stygius Say. Atchison county.

Family CULICIDÆ (mosquitoes).

Anopheles maculipennis Meig. Douglas county.
punctipennis Say.
Culex curriei Coq. Clark county.
inornatus Will. Douglas county.

Culex pungens Wied. Douglas county.
tæniorhynchus Wied. Clark county.
tarsalis Coq. Clark county.
triseriatus Say. Douglas county.
stimulans Walk. Douglas county.
Conchyliastes musicus Say. Douglas county.
Psorophora ciliata Fabr. Douglas county.

Family PSYCHODIDÆ (moth-like-flies).

Psychoda alternata Say. Douglas county.

Family CHIRONOMIDÆ (midges).

Ceratopogon argentatus Loew. Douglas county.
subasper Coq. Douglas county.
pergandei Coq. Douglas county.
albaria Coq. Douglas county.

Family TIPULIDÆ (crane-flies).

Geranomyia canadensis Westwood. Clark county.
Symplecta punctipennis Say. Clark county.

Family LEPTIDÆ (snipe-flies).

Rhachicerus obscuripennis Loew. Douglas county.
Xylomyia americana Wied. Douglas county.
pallipes Loew. Douglas county.
Chrysopila apicalis v. d. W. Douglas county.
quadrata Say. Douglas county.
foeda Loew. Douglas county.
modesta Loew. Douglas county.

Family STRATIOMYIDÆ (soldier flies).

Sargus decorus Say. Douglas county.
viridis Say. Douglas county.
Ptecticus similis Will. Douglas county.
Hermetia chrysopila Loew. Clark county.
Odontomyia binotata Loew. Douglas, Clark and Riley counties.
cincta Olivier. Douglas county.
aldrichii Johnson. Riley county.
americana Day. Morton county.
intermedia Wied. Douglas county.
nigra Day.
arcuata Loew. Clark county.
Stratiomyia apicula Loew. Douglas county.
meigenii Wied. Douglas county.
constans Loew. Clark county.
Nemotelus unicolor Loew. Douglas and Hamilton counties.
pallipes Say. Clark county.
kansensis Adams, n. sp. Clark county.
abdominalis Adams, n. sp. Clark county.

Family TABANIDÆ (horse-flies).

Chrysops sequax Will. Logan county.
œstuans Wulp. Clark county.
vittatus Wied.
fulvaster O. S. Clark county.
Silvius 4-vittatus Say. Morton and Hamilton counties.
pollinosus Will. Morton and Clark counties.
Tabanus exul O. S. Douglas and Sedgwick counties.
atratus Fabr. Clark county.
fulvulus Wied. Douglas county.
melanocerus Wied. Douglas county.
venustus O. S. Douglas, Riley and Morton counties.

Family ASILIDÆ (robber-flies).

Microstylum guenelodes Loew. Finney county.
Ospriocerus æacus Wied. Hamilton, Morton, Logan and Clark counties.
æacides Loew. Hamilton and Morton counties.
Stenopogon consanguineus Loew. Hamilton, Morton and Clark counties.
æacidinus Will. Hamilton, Morton, Wallace and Clark counties.
Stichopogon trifasciatus Say. Douglas, Hamilton, Morton, Wallace and Clark counties.
Taracticus octopunctatus Say. Douglas county.
Deromyia miscellus Loew. Douglas county.
angustiventris Macq. Wallace county.
platyptera Loew. Douglas, Sedgwick and Wallace counties.
angustipennis Loew. Wallace, Logan and Sedgwick counties.
Saropogon adustus Loew. Hamilton, Morton and Wallace counties.
combustus Loew. Hamilton, Morton, Wallace, Clark and Finney counties.
Atomosia rufipes Macq. Morton county.
Dasyllis tergissa Say. Douglas county.
Laphria canis Will. Douglas county.
Lampria rubriventris Macq. Wallace county.
Laphystia sexfasciata Say. Douglas and Clark counties.
Triclis togax Will. Douglas county.
Promachus bastardii Macq. Douglas county.
vertebratus Say. Douglas, Sedgwick and Wallace counties.
fitchii O. S. Hamilton, Morton and Clark counties.
albifacies Will. Hamilton and Morton counties.
Erax æstuans Linn. Morton and Riley counties.
cinerascens Bell. Douglas, Hamilton, Morton, Wallace, Finney and Clark counties.
varipes Will. Hamilton, Morton and Wallace counties.
leucocomus Will. Wallace county.
stamineus Will. Clark county.
tricolor Bell. Finney and Wallace counties.
Proctacanthus milbertii Macq. Douglas, Wallace, Logan and Clark counties.
philadelphicus Macq. Hamilton and Morton counties.
Asilus sericeus Say. Hamilton and Morton counties.
Rhadiurgus cirro-plaque Will. Finney and Morton counties.

Family MYDAIDÆ.

Mydas clavatus Dru. Douglas county.

Family NEMISTRINIDÆ (tangle-veined flies).

Rhynchocephalus sackeni Will. Clark and Morton counties.

Family BOMBYLIIDÆ (bee-flies).

Exoprosopa fascipennis Say. Douglas and Clark counties.
fasciata Macq. Douglas, Chase, Sedgwick, Riley and Logan counties.
titubans O. S. Morton and Logan counties.
decora Loew. Walllace, Finney and Clark counties.
dorcadion O. S. Wallace county.
Anthrax fulviana Say. Morton county.
sabina O. S. Clark county.
lateralis Say. Hamilton and Clark counties.
alternata Say. Clark county.
palliata Loew. Morton county.
tegminipennis Say. Clark county.
parvicornis Loew. Morton and Finney counties.
sinuosa Wied. Douglas county.
morio Linn. Finney county.
systris Coq. Hamilton county.
fulvohirta Wied. Douglas county.
nebulosa Coq. Finney and Hamilton counties.
mercedis Coq. Morton county.
eumenus O. S.? Finney county.
agrippina O. S. Hamilton county.
halcyon Say. Finney county.
Spogostylum analis Say. Douglas and Clark counties.
pauper Loew. Morton and Clark counties.
Bombylius atriceps Loew. Douglas and Hamilton counties.
fratellus Wied. Douglas county.
Comastes robustus O. S. Finney county.
Systœchus vulgaris Loew. Finney and Sedgwick counties.
candidulus Loew. Douglas county.
Sparnopolius fulvus Wied. Douglas county.
Lordotus gibbus Loew. Finney county.
Geron senilis Fabr. Hamilton, Morton and Clark counties.
Phthiria scolopax O. S. Clark county.
sulphurea Loew. Western Kansas (Williston).
Toxophora maxima Coq. Morton county.
pellicida Coq. Morton and Clark counties.

Family THEREVIDÆ (stiletto flies).

Psilocephala rufiventris Loew. Clark county.
acuta Adams, n. sp. Clark county.
hæmorrhoidalis Macq. Douglas county.
notata Wied. Douglas county.
platancala Loew.? Hamilton and Morton counties.

Family SCENOPINIDÆ (window-flies).

Scenopinus fenestralis Fabr. Douglas county.
Metatrichia bulbosa O. S. Clark county.

Family ACROCERIDÆ (small-headed flies).

Oncodes melampus Loew. Douglas county.
pallidipennis Loew. Douglas and Clark counties.

Family EMPIDÆ (dance-flies).

Syneches rufus Loew. Douglas county.
Empis clausa Coq. Douglas county.
otiosa Coq. Douglas county.
Rhamphomyia nasoni Coq. Douglas county.
Tachydromyia pusilla Loew. Douglas county.
Platypalpus æqualis Loew. Douglas county.

Family DOLICHOPÔIDÆ (long-legged flies).

Dolichopus bifractus Loew. Douglas county.
cuprinus Wied. Douglas county.
eudactylus Loew. Douglas county.
longipennis Loew. Douglas county.
ramifer Loew. Douglas county.
scapularis Loew. Douglas county.
vigitans Ald. Douglas county.
aurifacies Ald. Douglas county.
willistonii Ald. Douglas county.
reflectus Ald. Douglas county.
Pelastoneurus vagans Loew. Douglas county.
Lasiargyra albicans Loew. Douglas county.
Sympycnus nodatus Loew. Douglas county.
Hydrophorus cerutias Loew. Douglas county.
Psilopus caudatulus Loew. Douglas county.
comatus Loew. Douglas county.
patibulatus Say. Douglas county.
sipho Say. Douglas and Sedgwick counties.
flavipes Aldr. Douglas county.

Family SYRPHIDÆ (syrphus-flies).

Omegasyrphus baliopterus Loew. Clark county.
Micrŏdon pachystylum Will. Clark county.
lanceolatum Adams, n. sp. Clark county.
Paragus bicolor Fabr. Douglas county.
tibialis Fall. Douglas, Finney, Hamilton and Clark counties.
Pipiza pulchella Will. Douglas, Morton and Clark counties.
Chrysogaster nitida Wied. Douglas, Pottawatomie and Clark counties.
Platychirus hyperboreus Staeg. Douglas county.
quadratus Say. Douglas and Clark counties.
Eupeodes volucris O. S. Hamilton, Finney and Clark counties.
Syrphus americanus Wied. Douglas and Hamilton counties.
ribesii Latr. Douglas county.

Syrphus abbreviatus Sch. Douglas county.
arcuatus Fall. Finney county.
Mesograpta geminata Say. Douglas county.
marginata Say. Douglas and Clark counties.
polita Say. Douglas and Sedgwick counties.
Sphærophoria cylindrica Say. Douglas and Morton counties.
Allograpta obliqua Say. Douglas, Hamilton, Morton and Clark counties.
Baccha clavata Fabr. Douglas, Logan, Sedgwick and Clark counties.
Brachyopa vacua O. S. Douglas county.
Volucella fasciata Macq. Clark county.
Copestylum marginatum Say. Clark county.
Eristalis æneus Scop. Douglas county.
latifrons Loew. Douglas, Finney, Morton and Clark counties.
tenax Linn. Douglas county.
transversus Wied. Douglas county.
Helophilus latifrons Leow. Douglas, Finney, Morton, Wallace and Clark counties.
similis Macq. Douglas county.
Tropidia mamillata Loew. Douglas county.
quadrata Say. Douglas county.
Brachypalpus frontosus Loew. Douglas county.
Syritta pipiens Linn. Douglas, Riley and Clark counties.
Spilomyia 4-fasciata Say. Douglas county.
Milesia ornata Fabr. Douglas county.
Ceria abbreviata Loew. Hamilton county.
Cynorhina umbratilis Will. Douglas county.

Family CONOPIDÆ (thick-head flies).

Conops brachyrrhynchus Macq. Douglas county.
excisus Wied. Hamilton and Clark counties.
xanthopareus Will. Douglas and Riley counties.
obscuripennis Will. Douglas county.
fronto Will. Wallace county.
sylvosus Will. Shawnee county.
Physocephala tibialis Say. Douglas county.
affinis Will. Clark county.
Stylogaster neglecta Will. Douglas and Riley counties.
biannulata Say. Douglas county.
Oncomyia baronii Will. Douglas county.
Zodion bicolor Adams, n. sp. Douglas county.
fulvifrons Say. Douglas, Hamilton and Clark counties.
obliquefasciata Macq. Clark county.
pygmæum Will. Clark county.
abitus Adams, n. sp. Douglas county.
Myopa vesiculosa Say. Douglas county.

Family PIPUNCULIDÆ (big-eyed flies).

Pipunculus elegantulus Will. Douglas county.
cingulatus Loew. Douglas county.
nitidiventris Loew. Douglas county.
subopacus Loew. Douglas county.
subvirescens Loew. Douglas county.

Family PLATYPEZIDÆ (flat-footed flies).

Platypeza velutina Loew. Douglas county.

Family ŒSTRIDÆ (bot-flies).

Gastrophilus equi Fabr. Douglas, Riley and Hamilton counties.
nasalis Linné. Riley, Morton and Clark counties.
Hypoderma lineata Villers. Seward county.

Family TACHINIDÆ (tachina-flies).

Tachina mella Walk. Douglas county.
Cistogaster divisa Loew. Douglas county.
immaculata Macq. Douglas and Clark counties.
Gymnosoma fuliginosa Desv. Douglas and Clark counties.
Phorantha occidentis Walk. Clark county.
Trichopoda pennipes Fabr. Douglas and Atchison counties.
Myiophasia ænea Wied. Douglas county.
Cryptomeigenia theutis Walk. Douglas county.
Hypostena maculosa Coq. Douglas county.
Leucostoma atra Town. Douglas county.
Clytiomyia flava Town. Douglas, Clark and Hamilton counties.
Wahlbergia arcuata Say. Douglas county.
Hemyda aurata Desv. Douglas county.
Epigrimyia polita Town. Clark county.
Paraplagia spinosula Bigot. Hamilton county.
Plagia americana v. d. W. Douglas and Clark counties.
Siphoplagia anomala Town. Clark county.
Distichona varia v. d. W. Douglas county.
Chætoglossa picticornis Town. Douglas county.
Pachyophthalmus floridensis Town. Douglas county.
Senotainia kansensis Town. Riley county.
rubriventris Macq. Douglas, Clark and Hamilton counties.
trilineata v. d. W. Douglas and Clark counties.
Biomyia brasiliana Br. & Berg. Clark county.
Belvosia bicincta Desv. Douglas county.
bifasciata Fabr. Douglas county.
Aphria ocypterata Town. Clark county.
Ocyptera carolinæ Desv. Douglas and Clark counties.
Linnæmyia comta Fall. Douglas county.
Exorista pyste Walk. Douglas and Clark counties.
confinis Fall. Douglas county.
eudryæ Town. Douglas county.
Euphorocera claripennis Macq. Douglas county.
Phorocera doryphoræ Riley. Douglas county.
Masicera schizuræ Town. Riley county.
Frontina frenchii Will. Douglas county.
Sturmia albifrons Walk. Douglas county.
Euthera tentatrix Loew. Topeka.
Winthemia quadripustulata Fabr. Douglas county.
Paradidyma singularis Town. Morton, Hamilton and Clark counties.
Metachæta helymus Walk. Douglas county.
Phorichæta sequax Will. Douglas county.

Chætoplagia atripennis Coq. Douglas and Clark counties.
Araba tergata Coq. Clark county.
Opsidia goniodes Coq. Douglas county.
Hilarella fulvicornis Coq. Douglas county.
polita Town. Douglas county.
decens Town. Morton county.
Gonia capitata DeG. Douglas, Atchison, Hamilton and Clark counties.
frontosa Say. Hamilton county.
sagax Will. Douglas county.
senilis Will.
Cnephalia ruficauda Town. Douglas county.
Spallanzania hesperidarum Will. Douglas and Clark counties.
Chætogædia analis v. d. W. Douglas county.
Trichophora ruficauda v. d. W. Douglas county.
Cuphocera fucata v. d. W. Douglas county.
Peleteria robusta Wied. Atchison, Douglas, Clark and Hamilton counties.
Siphona geniculata DeG. Douglas county.
Jurinia apicifera Walk. Douglas and Clark counties.
smaragdina Macq. Atchison and Douglas counties.
algens Wied. Douglas county.
lateralis Macq. Douglas county.
hystricosa Will. Douglas county.
hystricoides Will. Douglas county.

Family SARCOPHAGIDÆ (flesh-flies).

Sarcophaga cimbicis Town. Ford county.
carnaria Linn. Douglas county.
Tephromyia hunteri Hough. Ford county.

Family MUSCIDÆ (house-flies, blow-flies, screw-worm flies, horse-flies, etc.)

Hæmatobia serrata Desv. Douglas, Osage, Coffey and Russell counties.
Stomoxys calcitrans Linn. Douglas county.
Calliphora erythrocephala Meig. Douglas and Hamilton counties.
vomitoria Linné. Douglas and Clark counties.
Callomyia aldrichii Snow. Douglas county.
Lucilia cæsar Linn. Douglas county.
sylvarum Meig. Douglas county.
sericata Meig. Hamilton county.
Pseudopyrellia cornicina Fabr. Douglas, Morton and Clark counties.
Compsomyia macellaria Fab. Douglas, Hamilton, Morton and Clark counties.
Phormia regina Meig. Douglas, Morton and Hamilton counties.
terræ-novæ Macq. Douglas county.
Musca domestica Linn.
Cyrtoneura stabulans Fall. Douglas county.
Morellia micans Macq. Douglas county.
Myospila meditabunda Fab. Douglas county.

Family ANTHOMYIDÆ (vegetable maggots).

Anthomyia radicum Linn., var. calopteni Riley. Atchison and Brown counties.
angustifrons Meig. Douglas county.

Family MICROPEZIDÆ.

Micropeza turcana Town. Hamilton, Morton and Clark counties.
Calobata antennipennis Say. Douglas county.

Family PSILIDÆ.

Loxocera cylindrica Say. Douglas county.
pleuritica Loew. Douglas county.

Family ORTALIDÆ.

Pyrgota undata Wied. Clark county.
Rivellia quadrifasciata Macq. Douglas county.
micans Loew. Douglas and Clark counties.
variabilis Loew. Douglas county.
pallida Loew. Clark county.
Camptoneura picta Fabr. Douglas county.
Tetanops luridipennis Loew. Douglas county.
Tephronota humilis Loew. Douglas county.
Strictocephala cribrum Loew. Hamilton and Logan counties.
cribellum Loew. Clark county.
Callopistria annulipes Macq. Douglas county.
Œdopa capito Loew. Morton and Hamilton counties.
Chætopsis æna Weid. Douglas and Clark counties.
Stenomyia tenuis Loew. Douglas county.
Eumetopia rufipes Macq. Douglas county.

Family TRYPETIDÆ (apple maggots, etc.)

Straussia longipennis Wied. Douglas county.
Spilographa electa Say. Douglas and Clark counties.
Œdicarena persuasa O. S. Morton county.
diffusa Snow. Douglas, Morton, Riley and Wallace counties.
Plagiotoma obliqua Say. Sedgwick county.
Œdaspis atra Loew. Douglas county.
gibba Loew. Douglas county.
Carphotricha culta Wied. Douglas, Clark, Finney, Morton and Wallace counties.
Eurosta solidaginis Fitch. Douglas county.
Neaspilota alba Loew. Douglas, Clark, Morton and Hamilton counties.
Ensina humilis Loew. Clark county.
æqualis Loew. Douglas county.
Tephritis finalis Loew. Clark, Morton and Riley counties.
Euaresta bella Loew. Douglas county.
festiva Loew. Douglas county.
tapsetis Coq. Morton county.
Urellia abstersa Loew. Douglas and Morton counties.
actinobola v. d. W. Clark county.
solaris Loew. Western Kansas (Williston).

Family SAPROMYZIDÆ.

Lonchæa polita Say. Clark county.
Sapromyza tenuispina Loew. Hamilton county.

Family SCIOMYZIDÆ.

Tetanocera costalis Loew. Clark county.
pictipes Loew. Clark county.
Sepedon fuscipennis Loew. Clark county.
armipes Loew. Sedgwick county.

Family SCATOMYZIDÆ.

Cleigastra suisterei Town. Douglas county.

Family SEPSIDÆ.

Sepsis violacea Meig. Hamilton and Morton counties.

Family PIOPHILIDÆ (cheese maggots).

Piophila casei Linné. Douglas and Wyandotte countie

Family EPHYDRIDÆ (water-flies).

Paralimna appendiculata Loew. Finney and Morton counties.
Brachydeutra dimidiata Loew. Douglas county.

Family DROSOPHILIDÆ (pomace-flies).

Drosophila ampelophila Loew. Douglas county.

Family OSCINIDÆ (singing-flies).

Oscinis nudiuscula Loew. Douglas county.
pallipes Loew. Douglas county.
variabilis Loew. Douglas county.
Meromyza americana Fitch. Douglas and Finney counties.
Siphonella cinerea Loew. Morton county.
Chlorops appropinqua Adams. Finney county.
assimilis Macq. Douglas, Sedgwick, and Morton counties.
cineripennis Adams. Riley county.
grata Loew. Douglas county.
maculosa Loew. Douglas county.
melanocera Loew. Douglas county.
parva Adams. Douglas county.
pullipes Coq. Morton and Finney counties.
unicolor Loew. Finney county.
vesicolor Loew. Douglas county.
Elachiptera costata Loew. Douglas county.
longula Loew. Douglas county.

Family BORBORIDÆ.

Limosina fontinalis Fall. Douglas county.
near æqualis. Douglas county.
atra Adams. n. sp. Douglas county.
setigera Adams. n. sp. Douglas county.
Borborus equinus Fall. Douglas county.
Sphærocera coprophagus. Douglas county.

Family HIPPOBOSCIDÆ (ouse flies).

Hippobosca bubonis Bachard. Douglas county.

Total, 392 species.

SUMMARY OF SPECIES OF KANSAS DIPTERA.

Cecidomyidæ	1	Platypezidæ	1
Mycetophilidæ	4	Œstridæ	3
Bibionidæ	6	Tachinidæ	65
Culicidæ	11	Sarcophagidæ	3
Psychodidæ	1	Muscidæ	16
Chironomidæ	4	Anthomyidæ	2
Tipulidæ	2	Micropezidæ	2
Leptidæ	7	Psilidæ	2
Stratiomyidæ	18	Ortalidæ	15
Tabanidæ	11	Trypetidæ	19
Asilidæ	33	Sapromyzidæ	2
Mydaidæ	1	Sciomyzidæ	4
Nemistrinidæ	1	Scatomyzidæ	1
Bombyliidæ	35	Sepsidæ	1
Therevidæ	5	Piophilidæ	1
Scenopinidæ	2	Ephrydidæ	2
Acroceridæ	2	Drosophilidæ	1
Empidæ	6	Oscinidæ	17
Dolichopodidæ	19	Borboridæ	6
Syrphidæ	37	Hippoboscidæ	1
Conopidæ	17	Total	392
Pipunculidæ	5		

I am glad to publish in connection with the preceding list descriptions of six new species included therein, by my fellow worker in entomology, Dr. Charles F. Adams:

emotelus abdominalis, n. sp.

Male. Head and members black, frontal triangle white, a very narrow band on apex of second antennal joint yellow, proboscis long, jointed, the distal part much longer than basal and curves downward. Thorax black, pile white, the humeri, a narrow lateral line, and halteres, except the extreme base of peduncle, white. Abdomen wholly white. Legs yellowish white, with coxæ, basal three-fourths of femora, and a narrow band on tibiæ, black. Wings hyaline, larger veins yellowish translucent, the third vein forked.

Female. Front on anterior part with a triangular white spot on each side; abdomen black, the narrow lateral margins, a broad apical band attenuated at each end on each segment, and venter in the middle, white. Otherwise it agrees with the male. Length, 4 mm.

Numerous specimens, Englewood, Clark county, Kansas. Collected during June, 1903, by Dr. F. H. Snow. Close to *N. immaculatus* John., but the color and markings of the antennæ and humeri are different.

Nemotelus kansensis, n. sp.

Male. Head and members black, shining, the frontal triangle white, pro-

boscis long, the distal portion curving downward. Thorax shining black; pile, which is most prominent on the mesonotum, white; a small spot on humeri and sometimes a very narrow line extending half-way to base of wing, white; halteres white, with base of peduncle brownish black. Abdomen wholly white, except a rather long transverse black stripe on fifth segment. Legs black; tip of femora, base and tip of tibæ, and tarsi, except last joint, which is brown, yellow. Wings hyaline, larger veins yellowish translucent, third vein forked.

Female. Similar to the male, except in following particulars: Front is sometimes without white markings, other specimens have two white dots laterally at anterior end; abdomen black, lateral margins, a triangular spot on second, third, and fourth segments, posterior margin of last segment, and a median row of small dots on venter, white. Length, 5.5 mm.

Numerous specimens of each sex, Englewood, Clark county, Kansas. Collected during June, 1903, by Dr. F. H. Snow.

Psilocephala acuta, n. sp.

Female. Head yellow, opaque; ocellar tubercle unusually prominent, front in profile slightly excavated, with a small median fissure on lower half, two velvety black spots on lower half next to eyes; pile black, face with a black spot near lower angle of eye; antennæ yellow, first joint about as long as the third, bristles black, second joint nearly as broad as the first, third pear-shaped, slightly broader than the first, base and arista brownish black, palpi yellow, with black pile, proboscis brownish; cheeks thickly covered with white pollen and pile, bristles of occiput black; upper and lower angles of eyes acute. Thorax yellow pollinose, two median brownish lines on mesonotum abbreviated behind, two sublateral ones abbreviated anteriorly, pile white, bristles of mesonotum, metapleuræ and scutellum black, the latter two in number; halteres yellowish white, with a blackish spot at junction of peduncle and knob. Abdomen brownish, apex of segments yellow, subopaque, sparse pile white and black, venter largely brownish. Legs yellow; trochanters, an indefinite ring at apex of femora, extreme tip of tibiæ, tip of first two tarsal joints, and last three joints wholly brown; pile white, bristles black. Wings hyaline, veins black, most of the cells on basal and anterior part occupied largely by grayish brown; in last four posterior cells the grayish brown is not so intense; a small spot on humeral cross-vein, one at base of second vein, and one at apex of first vein black; fourth posterior cell broadly open.

Male. A black spot at apex of frontal triangle, dorsum of abdomen light yellow, pile white, venter largely yellowish, hind coxæ and all femora largely brownish, wings nearly wholly hyaline, small grayish-brown spot in marginal, submarginal, posterior and anal cells; otherwise agrees with the female. Length, 8 mm.

One male and several females, Englewood, Clark county, Kansas. Collected during June, 1903, by Dr. F. H. Snow.

Microdon lanceolatum, n. sp.

Male. Head black, subshining, covered with brownish-yellow pile; eyes bare; antennæ black, first joint equal to the second and third together in length, second about half as long as the third, third, when viewed from the side, lanceolate, from above subconical, arista basal, nearly as long as the third antennal joint, brownish black at base, yellowish on apical two-thirds; mouth-parts brownish. Thorax black, subshining, mesonotum and scutellum thickly brownish yellow pilose, pleuræ sparsely so, scutellum without spines, halteres yellow.

Abdomen black, subshining, yellowish pilose, the third segment except largely on posterior angles, the fourth except narrow posterior border, and venter of latter, black pilose. Legs black, sparsely yellow pilose, hind metatarsi slightly incrassate, about as long as the following joints together, all pulvilli yellowish. Wings hyaline, veins black, indistinctly infuscated. Length, 12 mm.

One specimen, Englewood, Clark county, Kansas. Collected during June, 1903, by Dr. F. H. Snow.

Limosina atra, n. sp.

Female. Black throughout; antennæ porrect, third joint broader than long, arista pubescent; mesonotum slightly pollinose, scutellum opaque. Abdomen and legs entirely black. Wings subhyaline, third section of costa shorter than the second, distal section of second vein much longer than the first section of the third, third vein with a slight curvature forward, ending before apex of wing. Length, 1.5 mm.

One specimen, Douglas county, Kansas.

Limosina setigera, n. sp.

Female. Front opaque black, median line and orbits shining, occiput black, cheeks and mouth-parts largely yellowish, antennæ black, porrect, arista pubescent. Thorax black, moderately shining, bristles of anterior part of mesonotum rather strong, pleuræ with a brownish cast, scutellum opaque, halteres light brown. Abdomen and legs brownish black; first and last joints of hind tarsi black. Wings hyaline, third section of costa shorter than the second, distal section of second vein over twice as long as the first section of the third, ending in the costa considerably beyond the apex of the discal cell, third vein with a slight curvature forward, ending before tip of wing. Length, 2 mm.

Two specimens, one from Douglas county, the other from Magdalena mountains, New Mexico. The latter was taken by Dr. F. H. Snow in August, 1894.